

ARASCHNIA LEVANA (L., 1758), A NEW SPECIES FOR THE MACEDONIAN BUTTERFLY FAUNA (LEP. : NYMPHALIDAE)

DIME MELOVSKI

*Biology Student's Research Society, Institute of Biology, Faculty of Natural Sciences and Mathematics,
P.O. box 162, 1000 Skopje (e-mail: melovskidime@yahoo.com)*

Abstract

Araschnia levana (Lepidoptera: Rhopalocera: Nymphalidae) is recorded for the first time in the fauna of the Republic of Macedonia from Shar Planina Mountains, Skopje region, Jakupica Mountains, Ograzhden Mountains, Galichica Mountains, Kavadarci and Kratovo region. Records are mapped for Macedonia and the flight period is discussed.

Introduction

Butterflies (Rhopalocera) are one of the best studied animal groups in the Republic of Macedonia. Intensive research was conducted during the twentieth century by many authors and number of articles was published. The most comprehensive work was that of Thurner (1964) where 185 species of Rhopalocera were published. It was supplemented by Schaidler & Jaksic (1988) and total of 199 species was presented, with maps of distribution. Further investigation revealed that *Gonepteryx cleopatra* L., 1767 should be included in Macedonian butterfly fauna (Krpac & Mihajlova, 1997). With the present inclusion of *Araschnia levana* a total of 201 species are now known for the Republic of Macedonia.

Investigations were undertaken in different regions of Macedonia. Some of them (in the Shar Planina Mountains, Ograzhden Mountains and Jakupica Mountains) were conducted as research projects for the Biology Students' Research Society. Voucher specimens from this study are retained in the author's private collection and in the collection of Ljubomir Stefanov (Skopje).

Results and discussion

The world distribution of *Araschnia levana* covers Central and East Europe, Central Asia to North-East China, Korea and Japan. Within the Balkans it is not reported from Albania, Macedonia and Central and South Greece (Pamperis 1997; Tolman 1997).

The only data concerning the presence of *A. levana* in Macedonia is that in Thomas (1993). That paper is in effect the field diary of Werner Thomas, published after his death but it has apparently been overlooked in subsequent works, such as Tolman (1997) and Krpac & Mihajlova (1997). However, as a result of the present research, conducted over the past eight years, 13 examples of *Araschnia levana* were encountered in seven regions in the Republic of Macedonia. Regions, localities, altitude, habitat type, date, number of specimens and collection where the specimens are kept, are given in the following list:

Shar Planina Mountains

Kuchi Baba (Tri Vodi), 1330 m, road in the beech forest, 18.06.1996 (not collected). Recorded by Slavcho Hristovski - Skopje.

Skopje region

Katlanovo (Laka), 400 m, 01.08.1999, along River Pchinja, riparian habitat: 1 ex. (not collected). Recorded by Metodija Veleviski - Skopje.

Jakupica Mountains

Above v. Nezhilovo, 800-900 m, road in oak forest, 17,18,19.07.1999: 4 ex. (coll. D. Melovski).

Kavadarci region

Moglishte, Vatasha, 500 m, 08.04.2001: 2 ex. (coll. Lj. Stefanov).



Fig. 1. Distribution of *Araschnia levana* in Macedonia

- New data
- Data published by Thomas (1993)

Ograzhden Mountains

Ezhovo Brdo, 1150 m, near mountain stream, 15.07.2000: 1 ex. (coll. D. Melovski);
1 km W of Suvi Laki, 950 m, near mountain stream, 17.07.2000: 1 ex. (coll. D. Melovski).

Kratovo region

v. Kuklica, near Kriva Reka river, 650 m, willow belt, 23.06.2004: 2 ex. (coll. Lj. Melovski).

Galichica Mountains

v. Elshani, fields with hedgerows of *Juglans regia*, on flower of *Sambucus ebulus*, 23.07.2004:
1 ex. (photographed by Lj. Stefanov).

The distribution of *Araschnia levana* in Macedonia is presented on Fig. 1. Specimens from The Shar Planina, Jakupica, Ograzhden and Galichica Mountains and the Skopje and Kratovo regions were summer forms, collected from late June to the end of July. The only spring forms were recorded in the Kavadarci region, recorded in April.

The habitats from which the adult *Araschnia levana* were recorded were beech forests on Shar Planina Mountains, oak forests on Jakupica Mountains and riparian habitats along the Rivers Pchinja and Kriva Reka and near a mountain stream on Ograzhden Mountain. The record on Galichica Mountain refers to agricultural land, but this is situated in the oak belt of the mountain.

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Square-spotted Clay *Xestia rhomboidea* (Esp.) (Lep.: Noctuidae) in Essex, first discovery of the caterpillar in the county

On 15 March 2004, a caterpillar of the Square-spotted Clay *Xestia rhomboidea* was found at Free Wood, Elmdon, in Essex, the first ever found in the county, providing proof that the moth is resident in Essex. It was found by Robin Field at 20.47 hours, at rest head downwards on a dead stem of Common Nettle *Urtica dioica* above fresh nettle foliage at the end of a search by nine of us from 20.20 to 20.50 hours. The larva was in an area of fairly sparse ground vegetation just inside the edge of the wood. The accompanying photograph, taken at the time, shows the habitat at the exact spot. Colin Plant (centre) is pointing at the larva with his torch. It is between him and the bag on the ground. There are shrubs within three metres, but the larva is in a more open situation and there are scattered grass tussocks for shelter.

It is instructive to examine how this result is the culmination of the combined efforts of various members of the mothing community, coupled with an increasingly